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CTK450ES-1

SongBank KEYBOARD CTK-450

ELECTRONIC MUSICAL INSTRUMENT
INSTRUMENTO MUSICAL ELECTRONICO

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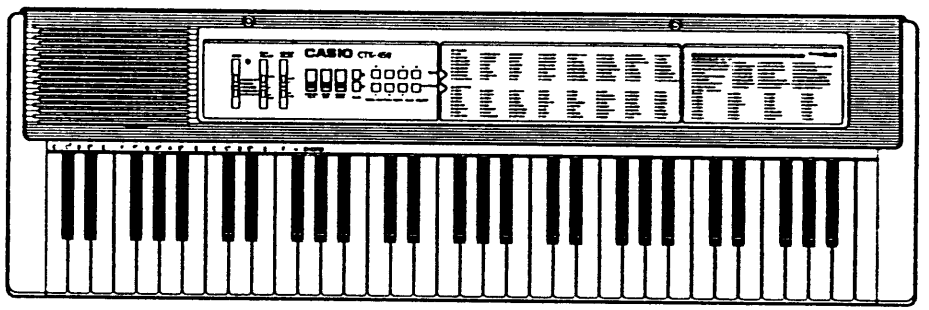
MANUAL DE OPERACION... 20



(英) (西)
CTK450ES-1

CASIO

SongBank KEYBOARD CTK-450
ELECTRONIC MUSICAL INSTRUMENT

Thank you and congratulations on your purchase of the CASIO CTK-450.
In order to enjoy the features and functions of this unit to their fullest, be sure to carefully read this manual and follow the instructions contained herein.

About the Song Book

- The song book included with this keyboard contains the melodies for the keyboard's Song Bank tunes.
- Note that some of the keyboard's Song Bank tunes may not be included in the song book.

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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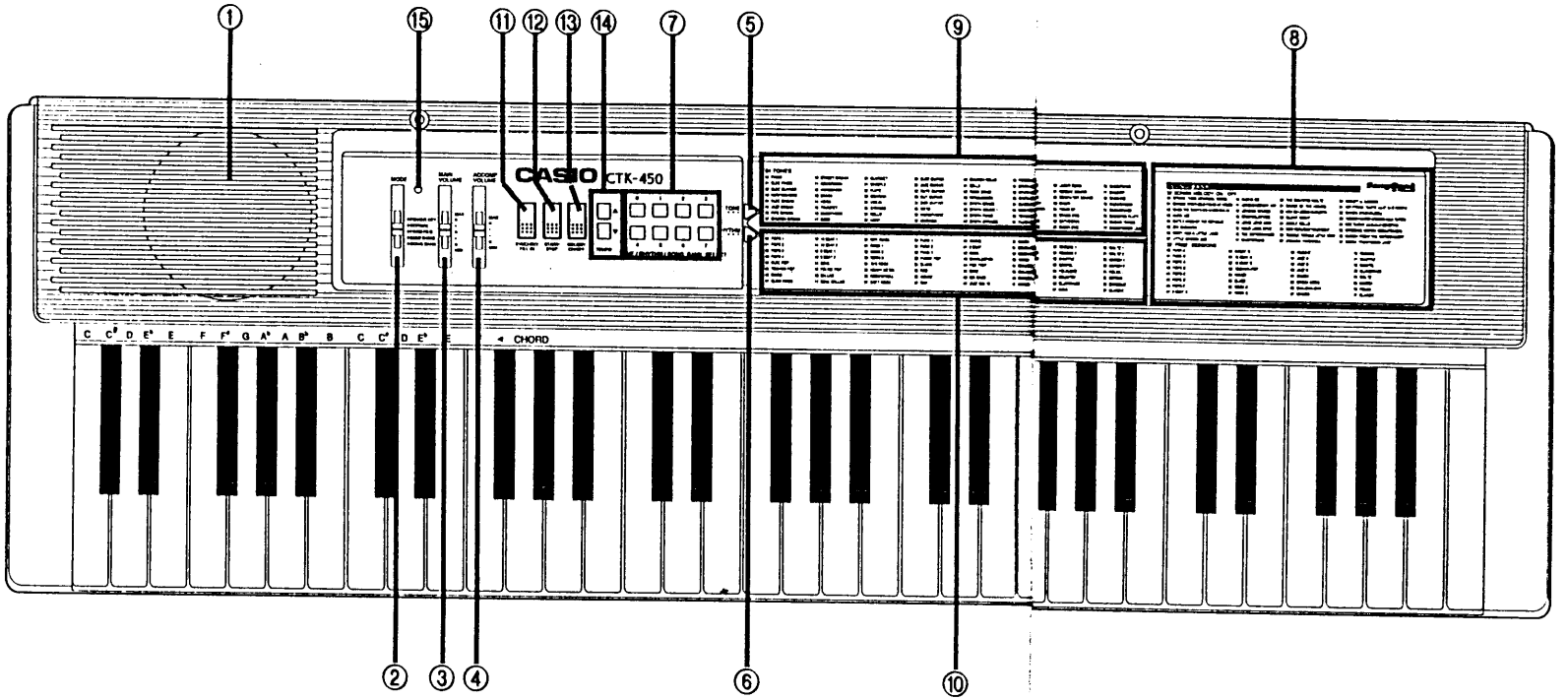
Important

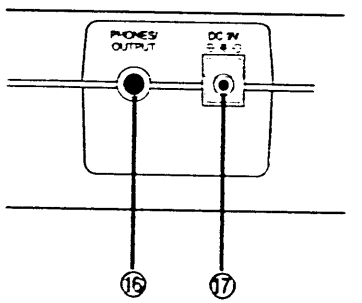
Any of the following conditions indicates that battery power is low and that you should replace batteries or shift to one of the alternate power sources as soon as possible.

- Dim power supply lamp
- Abnormally low speaker/headphone volume
- Distortion of sound output
- Abnormal auto-play tune playback
- Abnormal rhythm pattern playback
- Continued sound output even after you release a button

Control Locations



< Rear panel >



① Speaker
② MODE selector
③ MAIN VOLUME slider
④ ACCOMP VOLUME slider
⑤ TONE button
⑥ RHYTHM button
⑦ TONE/RHYTHM/SONG BANK SELECT buttons
⑧ SONG BANK list
⑨ 64 TONES list
⑩ 64 RHYTHMS list
⑪ SYNCHRO/FILL-IN button
⑫ START/STOP button
⑬ MELODY ON/OFF button
⑭ TEMPO buttons
⑮ Power indicator

⑯ PHONES/OUTPUT jack
⑰ DC 9V jack

Choosing a Power Supply

You can power your keyboard with 6 AA batteries, standard AC power (with an optional AC adaptor) or by plugging it in to the cigarette lighter of a car (with an optional car adaptor).

Installing the batteries

This keyboard can be powered by 6 AA size (SUM-3/R6P) dry cell batteries. Make sure that the **MODE selector** is set to the POWER OFF position when installing batteries.

1. Open the battery compartment cover on the bottom of the unit.
2. Load new batteries taking care that the plus (+) and minus (–) poles are facing in the correct directions.

• Standard battery life is approximately 2 hours (SUM-3) / 4 hours (AM-3).

Important

Any of the following conditions indicates that battery power is low and that you should replace batteries or shift to one of the alternate power sources as soon as possible.

- Dim power supply lamp
- Abnormally low speaker/headphone volume
- Distortion of sound output
- Abnormal auto-play tune playback
- Abnormal rhythm pattern playback
- Continued sound output even after you release a button

Precautions

Incorrectly using batteries can cause them to leak or burst, and may damage your unit. Note the following precautions:

- Be sure that the plus (+) and minus (–) poles are facing in the correct directions.
- Do not mix battery types.
- Do not mix new batteries with old ones.
- Never leave dead batteries in the battery compartment.
- Remove batteries when not using the unit for extended periods.
- Never try to recharge the batteries that are specified for the power supply of this unit.
- Do not expose batteries to direct heat or let them become shorted or try to take them apart.

(If a battery leaks, clean out the battery compartment of the unit immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.)

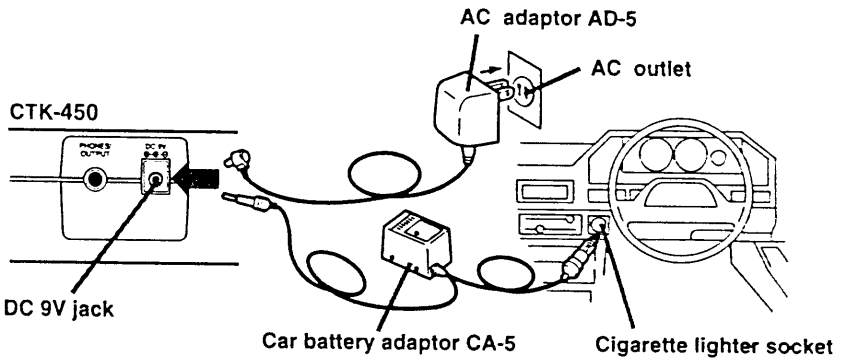
Using AC power

An AC adaptor (AD-5, optional) is required when using household current. Use only genuine CASIO adaptor with the same voltage rating (100, 117, 220 or 240V) as the

power supply in your area to prevent damage to internal components. Be sure to turn the power of the unit off before you connect the adaptor to the unit. Plug the AC adaptor into the AC outlet and the cord into the unit. This will automatically cut off the battery power supply.

Using a car's cigarette lighter

With the car adaptor (CA-5 optional), DC power is supplied from a car battery through the cigarette lighter. Be sure to turn the power of the unit off before you connect the adaptor to the unit.



Important

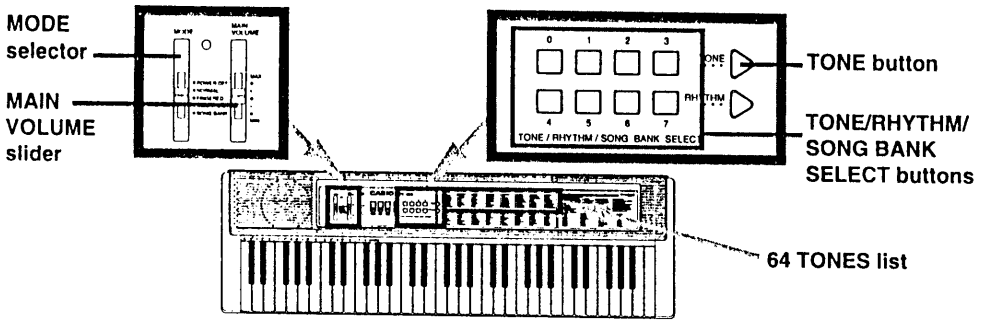
- The adaptor may become warm when it is being used. This is normal and does not indicate any problem.
- Be sure to unplug the adaptor from the power source when you are not using the unit.
- Whenever connecting or disconnecting the adaptor, be sure that the power of the unit is switched off.
- Be sure to unplug the car adaptor from the cigarette lighter socket when you are not using the unit. Leaving the car adaptor plugged in can cause damage or can run down your car's battery.
- Never connect the car adaptor to a 24V DC cigarette lighter (in a bus or truck). Doing so can damage the unit.
- Certain makers of cars may have non-standard cigarette lighter shapes or sizes. Be sure to check the size of your car's cigarette lighter before using the car adaptor.
- Never use a power supply that does not match that specified for the unit. Doing so can damage the adaptor or your unit.

Auto power off function

Power is automatically cut off approximately 6 minutes after the last operation of the unit. Power supply can be restored by switching power OFF and then ON again.

Operation

Playing the keyboard



Follow these steps to play the keyboard.

1. Set the **MAIN VOLUME slider** to the MIN position.

2. Set the **MODE selector** to NORMAL.

3. Select a tone (see "Selecting a preset tone").

4. Play the keyboard, and adjust the **MAIN VOLUME slider** for the desired volume.

Selecting a preset tone

You can choose from 64 preset tones. The name of each tone is labeled with a two-digit number on the keyboard's top panel (**64 TONES list**).

To select a tone, follow the steps below.

1. Press the **TONE button**.

2. Enter the two-digit number by pressing the **TONE/RHYTHM/SONG BANK SELECT button**. For example, to select OBOE (No.17), press [1] and then [7].

3. To change the tone, repeat step 2 above.

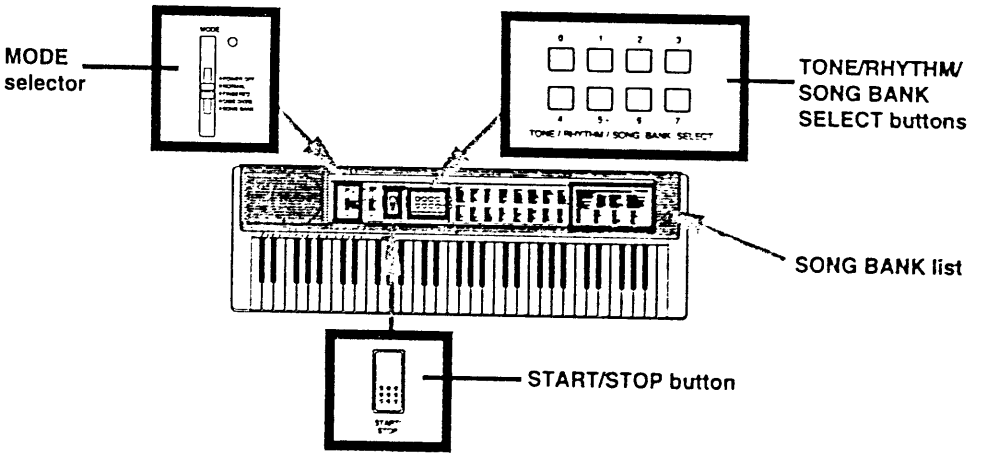
Notes:

- Some of the preset tones split the keyboard and assign two, four, or five sounds to keyboard. The sound produced depends on what position of the keyboard you play. For example, BASS/ PIANO (No. 70) puts bass on the left and piano on the right of the keyboard.

- This keyboard is capable of producing a maximum of 8 notes at the same time. The number of notes that can be played at the same time is reduced when rhythm is being played, when you are using Auto-Accompaniment, etc.
- When you select the following preset tones, this keyboard is capable of producing a maximum of 16 notes at a time; Tone number 17, 21, 23, 24, 26, 50, 51.

Playing the auto-play tunes

Your keyboard features 32 demonstration tunes. The name of each tune is labeled with a number on the keyboard's top panel (**SONG BANK list**, 00 ~ 37).
To play an auto-play tune, follow the steps below.



1. Set the **MODE selector** to SONG BANK.

2. Enter the two-digit number by pressing the **TONE/RHYTHM/SONG BANK SELECT button**. For example, to select "LONDON BRIDGE" (No.12), press [1] and then [2].

3. Press the **START/STOP button** to start the tune.

Notes:

- The tune is played in an endless loop. If you want to stop the tune, press the **START/STOP button**.
- You can change the tempo of the tune using the **TEMPO buttons** while the tune is playing.
- You can change the tone and the rhythm of the tune while it is playing.
  To change the tone, press the **TONE button** and then enter the two-digit number of the tone by pressing the **TONE/RHYTHM/SONG BANK SELECT button**. To change the rhythm, press the **RHYTHM button** and then enter the two-digit number of the rhythm by pressing the **TONE/RHYTHM/SONG BANK SELECT button**.

To switch off the melody part of an auto-play tune

By switching off the melody part of an auto-play tune, you can play the melody part by yourself along with the auto-play accompaniment.

- The song book included with this keyboard contains the melodies of the auto-play tunes for your reference.

Follow the steps below to switch off the melody part of an auto-play tune.

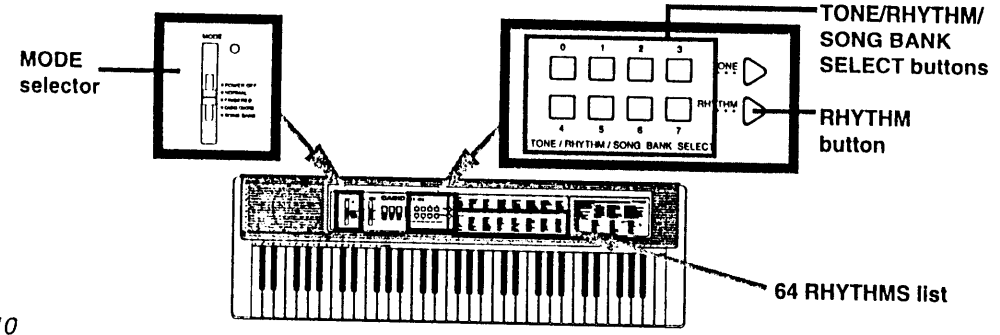
1. Set the **MODE selector** to SONG BANK.
2. Press the **MELODY ON/OFF button**.
3. Enter the two-digit number by pressing the **TONE/RHYTHM/SONG BANK SELECT button**. For example, to select "LONDON BRIDGE" (No.12), press [1] and then [2].
4. Press the **START/STOP button** to start the tune.
5. Adjust tempo using **TEMPO buttons**.
6. Start playing the melody on the keyboard.

Notes:

- You can freely switch the melody part of the tune on and off by pressing the MELODY ON/OFF button while the tune is playing.
- The notes contained in parentheses in the sheet music are for intros, endings, and fill-ins. These notes are always played, even if you switch off the melody part.

Selecting an auto-rhythm

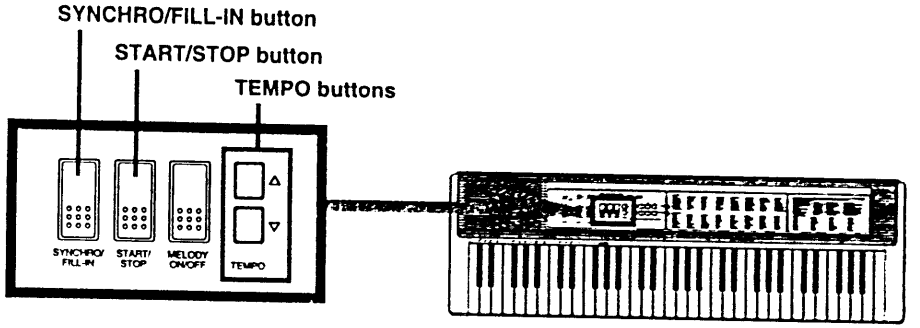
You can choose from 64 auto-rhythms. The name of each rhythm is labeled with a two-digit number on the keyboard's top panel (**64 RHYTHMS list**).



To select an auto-rhythm, follow the steps below.

1. Set the **MODE selector** to NORMAL.
2. Press the **RHYTHM button**.
3. Enter the two-digit number by pressing the **TONE/RHYTHM/SONG BANK SELECT button**. For example, to select DISCO (No.06), press [0] and then [6].
4. To change the rhythm, repeat step 3 above.

Playing an auto-rhythm



To play an auto-rhythm, follow the steps below.

1. After selecting an auto-rhythm, press **START/STOP button** to start the rhythm.
2. Adjust the tempo using the **TEMPO buttons**. Each press of △ speeds up the tempo, while pressing ▽ slows it down.
3. Adjust the **MAIN VOLUME slider** and **ACCOMP VOLUME slider** for the desired sound balance.
4. Press **START/STOP button** again to stop auto-rhythm play.

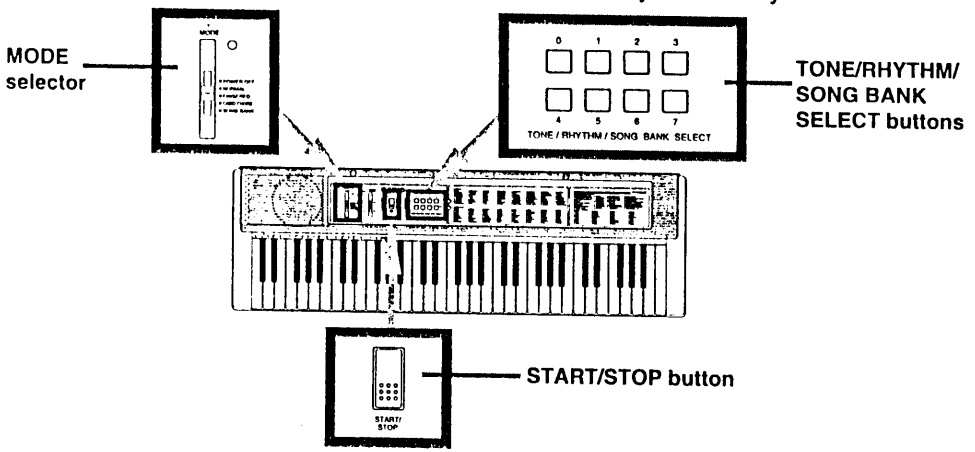
Using fill-in rhythm

You can insert a fill-in rhythm by pressing the **SYNCHRO/FILL-IN button** while an auto-rhythm plays.

Note:
You can also use the **SYNCHRO/FILL-IN button** to set the keyboard to start the rhythm and chord accompaniment at the same time. See "Using synchro start" on page 16.

Using 32 FREE SESSIONS

SONG BANK songs 40 through 77 contain an accompaniment for a total of 32 different types of music. You can use the preset chord progressions for these accompaniments and play along with your own melody on the keyboard.



To use FREE SESSIONS

1. Set the **MODE selector** to SONG BANK.
2. Specify the SONG BANK song you want by inputting a two-digit number with the **TONE/RHYTHM/SONG BANK SELECT button**. To select "POPS C" (No. 44) for example, press [4] and then [4].
3. Press the **START/STOP button** to start FREE SESSIONS play. At this time, some FREE SESSIONS accompaniment may not start while the melody is set to off. Then, press **MELODY ON/OFF button** before playing the FREE SESSIONS accompaniment.
4. Press **START/STOP** again to stop FREE SESSIONS play.

Notes

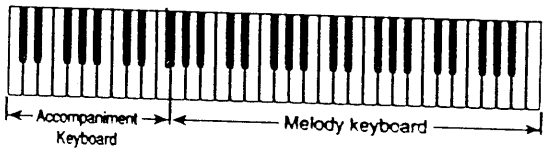
- With FREE SESSIONS accompaniment, the chord progression changes automatically as shown in the table at the back of this manual. See "32 FREE SESSIONS chord progressions" on pages 38-39.
- Note that the chord progression is preset, and plays the same way each time, no matter what you play on the keyboard. This is the difference between FREE SESSIONS and Auto-Accompaniment.
- You cannot change the key of the FREE SESSIONS accompaniment patterns.

Auto-accompaniment

This unit features 64 accompaniment patterns that let you add full accompaniments to your performances automatically.
You can select from two types of auto-accompaniment – simplified fingering chord play (CASIO CHORD) or standard fingering (FINGERED).

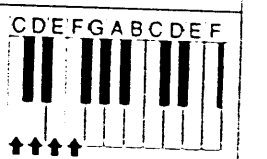
■Accompaniment keyboard

When you set the **MODE selector** to FINGERED or CASIO CHORD, the keys of the lower 1.5 octave of the keyboard are the accompaniment keys and the rest of the keyboard is the melody section.



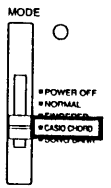
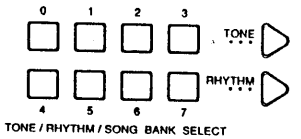
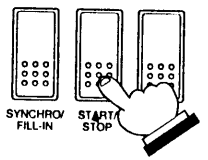
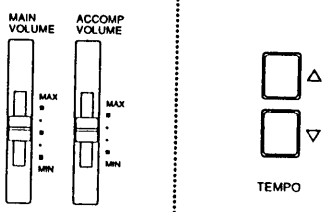
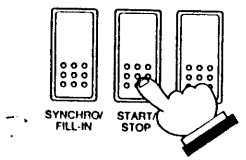
■Playing an accompaniment using CASIO CHORD

The CASIO CHORD system lets you easily play the four main types of chords. Playing of the chords is simplified as shown in the chart below.

Keys	Chord Type	Example
Pressing **one** accompaniment key	Major chord	C (C Major Chord)
Pressing **two** accompaniment keys	Minor chord	Cm (C Minor Chord)
Pressing **three** accompaniment keys	Seventh chord	C7 (C Seventh Chord)
Pressing **four** accompaniment keys	Minor seventh chord	Cm7 (C Minor Seventh Chord) 

Note:
The bottom note that you play determines the name of the chord. For example, if the bottom note is C, the keyboard plays a C chord.

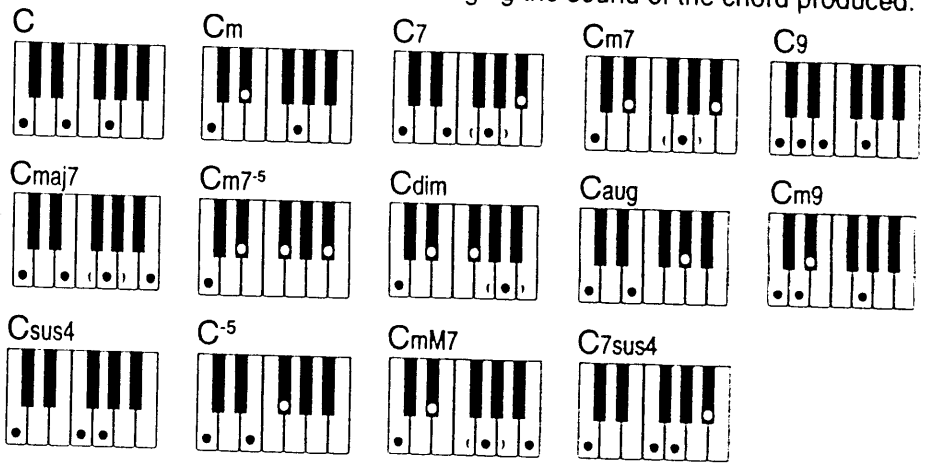
Follow these steps to play the CASIO CHORD auto-accompaniment.

1. Set the **MODE selector** to the CASIO CHORD position.	
2. Select one of the auto-rhythms. (refer to "Selecting an auto-rhythm" on pages 10-11).	
3. Start the auto-rhythm by pressing the **START/STOP button**.	
4. Press one to four accompaniment keys. The accompaniment automatically plays.	—
5. Adjust **TEMPO [△/▽], MAIN VOLUME slider** and **ACCOMP VOLUME slider**.	
6. Press the **START/STOP button** to stop the auto-accompaniment.	

■Playing an accompaniment using standard fingering

The standard fingering (FINGERED) mode lets you play a wider variety of chords. You can start an accompaniment pattern by pressing down either three or four of the proper accompaniment keys.

This unit is capable of recognizing 14 different chords. The following shows the fingerings of the recognized chords with a root of C. Note that the fingerings within parentheses can be omitted without changing the sound of the chord produced.



Follow the same steps to play the standard fingering auto-accompaniment as is described on the last page.
However, note the following:

- Set the **MODE selector** to FINGERED position.
- Press ***either 3 or 4 proper accompaniment keys*** as shown above to start the accompaniment play. Fingered chord with less than 3 notes produces no response.

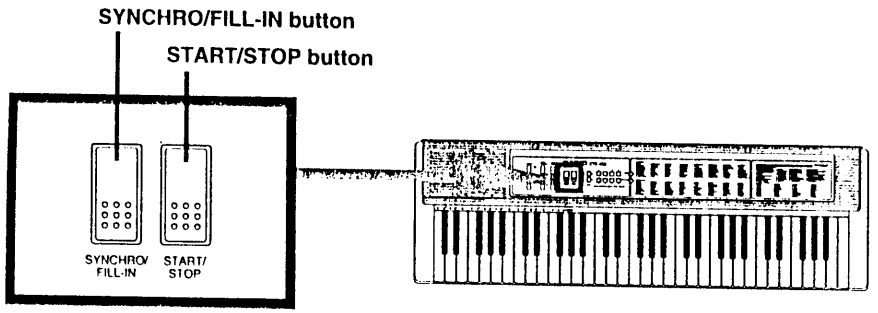
Notes:

- Each of the above examples shows only one of the possible fingerings for each chord. Note that you can play a chord by pressing its notes in any combination.
  For example, each of the following fingerings produce the same C chord.

- See the "List of Fingered Chord" on pages 40-42 for information on the fingering of chords with all roots.

Using synchro start

You can start the rhythm and accompaniment pattern at the same time, with your play of the accompaniment keyboard. To do this, follow the steps below.



1. Set the **MODE selector** to the CASIO CHORD or FINGERED position.
2. Select an auto-rhythm (pages 10-11).
3. Press the **SYNCHRO/FILL-IN button.**
4. Press the accompaniment keys to play the first chord. As soon as you do, the auto-accompaniment pattern begins to play.
5. To stop the auto-accompaniment pattern play, press the **START/STOP button.**

Troubleshooting

Problem	Possible Cause	Remedy
No sound from the keyboard.	1. Headphones connected. 2. Power supply problem.	1. Unplug headphones. 2. Check power supply. • Are battery poles (+/–) facing correctly? • Are batteries dead? • Is AC adaptor connected correctly?
No rhythm. **No accompaniment.**	**ACCOMP VOLUME** set to MIN.	Slide **ACCOMP VOLUME** setting toward MAX.
No accompaniment even if accompaniment keys are pressed.	**MODE selector** is set to "FINGERED" and accompaniment keys are not pressed correctly (Fingered chord with less than 3 notes produces no response.)	Press either 3 or 4 proper accompaniment keys as shown on page 15.
Occasional interference.	Refrigerators, washing machines and similar electric appliances.	Use outlet as far away as possible from appliance thought to be the cause.
No sound when connected to external amplifier.	Defective connection cord.	Replace connection cord.
No melody part while playing an auto-play tune.	The melody set to off.	Press **MELODY ON/OFF button.**
The tone doesn't switch even if TONE/ RHYTHM/SONG BANK SELECT button is pressed.	**MODE selector** set to SONG BANK.	1. Slide **MODE selector** to other settings (NORMAL etc). 2. Press **TONE/RHYTHM/ SONG BANK SELECT button** while the auto-play tune is playing.

Problem	Possible Cause	Remedy
No FREE SESSIONS accompaniment even if START/STOP button is pressed.	Some FREE SESSIONS accompaniment may not start while the melody is set to off.	Press **MELODY ON/OFF button** before playing the FREE SESSIONS accompaniment.

Care of Your Keyboard

Avoid heat, humidity or direct sunlight.
Do not overexpose the unit to direct sunlight, or place near an air conditioner, or in any extremely hot place.

Take care not to drop the unit and avoid strong impact.
Strong impact may cause malfunctions. When carrying or transporting the unit, protect the keyboard and switches with soft cloth or other material.

Keep the unit free of liquids, dust, etc.
Do not allow foreign matter to get between the keys, especially metallic objects such as hairpins, sewing needles or coins. Also, do not let the unit get wet.

Never attempt to modify any parts of the unit.
The unit is a precision instrument, made of electronic parts. Any modification of, or tampering with inner parts may cause malfunction.

Do not use lacquer, thinner or similar chemicals for cleaning.
Clean the keyboard with a soft cloth dampened in a weak solution of water and a neutral detergent. (Soak the cloth in the solution and squeeze until it is almost dry.)

Specifications

Number of keys:	61
Polyphony:	16-note (max)
Preset tones:	64
Auto-rhythms:	64
Built-in speakers:	10 cm dia. (output = 1.5W)
Auto-play tunes:	32 (SONGS MELODY ON/OFF), 32 (FREE SESSIONS)
Auto-accompaniment:	CASIO CHORD, FINGERED
Terminals:	PHONES/OUTPUT jack [ø 3.5mm, output impedance: 40Ω, output voltage: 3.5V(RMS)MAX], DC 9V jack
Power source:	3-way AC/DC power sources; AC: 100, 117, 220 or 240 (± 10V), 50/60 Hz, with optional AC adaptor AD-5. DC: 6 AA size dry batteries Battery life: approx. 2 hours (SUM-3/R6P) 4 hours (AM-3/LR6) Car battery: Requires optional CA-5 car adaptor
Auto power off:	Approximately 6 minutes after the last operation
Power consumption:	7.0W
Dimensions(W x D x H):	920 x 291 x 86 mm (36 1/4" x 11 7/15" x 3 3/8")
Weight:	3.5kg (7.7 lbs)
Standard accessory:	Score stand, song book

• Design and specifications are subject to change without notice.